



MIAMI-DADE  
WATER AND SEWER DEPARTMENT  
A Department of Miami-Dade County, Florida

2001  
comprehensive  
ANNUAL FINANCIAL REPORT

For the Fiscal Year Ended September 30, 2001



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## Vision Statement

The Miami-Dade Water and Sewer Department will be a utility that is a leader in providing public health protection and environmentally sound and innovative utility services using state-of-the-art technologies, proven operational expertise, resource planning and excellent customer service in a cost-effective manner.

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## Mission Statement

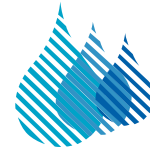
The Miami-Dade Water and Sewer Department is committed to serving the needs of Miami-Dade County residents, businesses, and visitors by providing high-quality drinking water and wastewater disposal services while providing for future economic growth via progressive planning; implementing water conservation measures; safeguarding public health and the environment; and providing for continuous process improvements and cost efficiencies.

# Introductory Section

## Miami-Dade Water and Sewer Department

A DEPARTMENT OF MIAMI-DADE COUNTY, FLORIDA

Comprehensive Annual Financial Report  
For the Fiscal Year Ended September 30, 2001  
Report prepared by: Controller Division and Public Affairs Section



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Betty T. Ferguson  
DISTRICT 1



Dorrin D. Rolle  
DISTRICT 2



Dr. Barbara Carey-Shuler  
DISTRICT 3



Gwen Margolis  
*Chairperson*  
DISTRICT 4



Bruno A. Barreiro  
DISTRICT 5



Rebeca Sosa  
DISTRICT 6



Jimmy L. Morales  
DISTRICT 7

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Board of County  
**Commissioners**  
Miami-Dade County, Florida



Katy Sorenson  
DISTRICT 8



Dennis C. Moss  
DISTRICT 9



Sen. Javier D. Souto  
DISTRICT 10



Joe A. Martinez  
DISTRICT 11



Dr. Miriam Alonso  
DISTRICT 12



Natacha Seijas  
DISTRICT 13



March 31, 2002

Honorable Chairperson and Members  
Board of County Commissioners  
Miami-Dade County, Florida

Dear Chairperson and Members of the  
Board of County Commissioners:

# Message from the Mayor

Last year brought many challenges for Miami-Dade County and the Miami-Dade Water and Sewer Department. One of the most prominent was the September 11 terrorist attacks that affected our entire nation. But still, the Department continued to provide County residents with high-quality water and wastewater services, while abiding by all state and federal regulations and maintaining the safety of the County's drinking water. It did so while not only keeping rates steady for the fourth straight year of a five-year promise not to raise rates, but rates were actually reduced for fiscal year 2002.

The Department was able to achieve this by remaining a model of efficiency in government. It provided the best possible service to its customers and ensured the safety of the environment while cutting costs throughout the Department and staying competitive. The Department's efficiency program—POWER (Partnership Optimizing WASD's Efficiency and Reengineering)—has been instrumental in this success.

Thanks to POWER, the Department has been able to accomplish a

number of goals it set for itself. In addition to providing topnotch services at rates that are among the lowest in the nation, the Department has:

- Continued to comply with the terms of its Consent Decree/Settlement Agreement with state and federal regulators
- Not laid off any employees
- Opened the lines of communication between management, employees and their unions
- Saved its customers and County taxpayers millions of dollars through cost-cutting ideas and innovations
- Improved customer service

The Department's excellent management of its capital program has been another bright spot. The result is that water and sewer system ratepayers get the most for their dollars. Future major capital improvements include a new water treatment plant to serve residents of south Miami-Dade County, and enhancements to the peak flow capacity of the Department's sanitary sewer systems.

Related to the capital program is the Needs Assessment program.

Major water and wastewater service needs throughout the County—including both initiative-based projects and deficiencies—were identified under this program. Partial funding for this program has been identified; however, a comprehensive funding plan needs to be developed.

The future brings with it many challenges as well as opportunities for the Department as it continues in its efforts to remain competitive while it protects South Florida's fragile ecosystem. Going into the last year of its five-year promise not to increase rates, it is evident the Department needs some assurance of a strategy to ensure its long-term financial stability. But given the Department's topnotch track record this past year, I feel confident it will continue to succeed in its mission of providing high-quality water and sewer services to the residents of Miami-Dade County.

Sincerely,

**Alex Penelas**

Mayor





# Message from the County Manager

The Miami-Dade Water and Sewer Department continued to prosper and provide quality services to residents in 2001 despite the many challenges our community and government faced. During this period, the Department made several significant accomplishments and was recognized nationally for excellence in their service area.

One of the Department's biggest milestones was its new Customer Information System, or CIS. Though not fully operational until after the end of FY 00-01, the bulk of the background work to prepare the new system took place during 2001. The new CIS will allow the Department to offer its customers many exciting features including a new, easy-to-read bill design, the ability to bill customers monthly, online viewing and payment of bills, the ability to accept credit card and bank debit card payment, and the ability to close accounts via e-mail notification.

In addition to the new CIS, the Department successfully continues to modernize departmental functions in other areas. The costs of capital projects are better tracked through the Department's Activity Base Costing System. Supervisory Control

and Data Acquisition System technology allows the Department to monitor and control its water and wastewater operations from remote sites. The Geographic Information System permits the Department to keep an accurate database of its numerous water transmission and wastewater collection processes. In addition, the Enterprise Access Management Software System, when implemented, will allow the Department to keep even better track of maintenance work orders to ensure the most efficient use of resources. All of these technological improvements will further enhance the efficiency and effectiveness of the Department.

Another success story is the Department's new headquarters building, the Douglas Facility. Construction on the facility began during the early part of the fiscal year, and employees started moving in December 2001. Conveniently located at the Douglas Road Metrorail Station, the Douglas Facility features the latest in energy and water conservation, as well as data and telecommunications technology. Most importantly, it offers a more productive working environment by having the Department's employees centrally located.

Department employees and management have been working

hard and Wall Street has noticed.

During FY 00-01, Moody's Investors Service upgraded the Department's bond ratings to A1 from A2. This makes the second year in a row that a major national bond-rating agency upgraded the Department's revenue bonds.

The Department stands ready to face the challenges of the future. Its hardworking employees and management have done an excellent job of providing the highest quality and cost-effective water and wastewater services. Maintaining and improving upon this high level of service excellence is the Department's ongoing mission.

Sincerely,

**Steve Shiver**

County Manager



# Message from Management

The Comprehensive Annual Financial Report of the Miami-Dade Water and Sewer Department (the Department) for the fiscal year ended September 30, 2001, is submitted herewith. Management is responsible, in all material respects, both for the accuracy of the data and the completeness and fairness of the presentation, including all disclosures. The data is reported in a manner designed to present fairly the financial position and results of operations of the Department. All disclosures necessary to enable the reader to gain an understanding of the Department's financial and operational activities are included.

The Comprehensive Annual Financial Report is presented in three sections: introductory, financial and statistical. The introductory section includes the Board of County Commissioners, the transmittal letters and the Department's organizational chart. The financial section includes

the Department's comparative financial statements and the individual water and wastewater system comparative financial statements. The statistical section includes selected financial and demographic information, generally presented on a multi-year basis.

The Miami-Dade Water and Sewer Department, a department of Miami-Dade County (the County), owns and operates the County's water and wastewater systems. The Department serves 391,000 retail customers within the County and provides large-scale wholesale water and/or wastewater service to 18 municipalities.

## Economic Condition and Outlook

As predicted in 2000, the local economic condition throughout most of fiscal year 2001 remained upbeat, albeit at a more moderate pace than in the previous year, even though the U.S. economy began to decline in the spring of 2001 with the start of a recession. Local new business activity continued to grow during the year, as well as residential and, at a slower rate, commercial construction. The commercial real estate market suffered due to an over-supply created when high-tech telecom activity declined, as well as international trade and

commerce. Then, at the end of the fiscal year, the tragic events of September 11<sup>th</sup> made their mark at both national and local levels, causing an immediate decline in consumer confidence and in tourism. Although the County's population has continued to steadily increase, its unemployment rate continues to top those of the nation and the state, taking an even sharper incline at year-end.

For obvious reasons, the ultimate direction of both global and national economies is uncertain for 2002 although the national recession appears to be coming to a close. However, certain economic arenas may weather the storm. Reduced interest rates, coupled with evidenced stock market uncertainties, are causing residential property sales to grow. Furthermore, a heavy marketing campaign, at both local and national levels, has been launched in an attempt to promote tourism. It is not known whether the travel industry will ever recover to pre-terrorism levels, but it will most likely not occur in 2002. Also, serious existing difficulties in Latin America will continue to inhibit trade expansion. Nevertheless, the Department will continue to expand and modernize its water and wastewater systems, where necessary, to accommodate the expected continued increase in the County's population.

*The Department Director and Assistant Directors at the new Douglas Facility*



# Major Initiatives

## September 11, 2001 Terrorist Attacks

The Department and all its employees were shocked, saddened and outraged along with the rest of the country by the attacks that took place September 11, 2001.

As a result of the events of that fateful day, the state, the County and the Department took measures within hours to increase security at the Department's numerous facilities. Though no specific threat was identified against the Department, it became clear that the nation's public systems—including its water supplies—were at risk of attack.

This unfortunate incident prompted the Department to look at

ways to step up security at all of its sites. The Department's plan is to use both technological and human resources to secure its various sites throughout the County. This has already resulted in higher expenditures for the Department towards the end of fiscal year 2000-01 (FY 00-01), and it is expected to result in higher expenditures in the years to come.

One positive outcome of this tragedy was that the country—and the Department's employees—came together to help the victims and their families. A number of employee-initiated fundraisers were held throughout the Department, with proceeds going

to the various relief funds. A Departmental blood drive was organized, with more to follow. The nationwide resurgence in patriotism touched the Department, as seen in various photos throughout this Comprehensive Annual Financial Report.

## Consent Decrees and Settlement Agreements

The Department continued its successful implementation of the Consent Decrees and Settlement Agreements (CD/SA) program with the United States Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (FDEP). Under the CD/SA program, the Department agreed to accelerate its \$1 billion capital improvement initiative to upgrade the County's wastewater system. The

Department is subject to a schedule of stipulated penalties if certain established completion dates are not met.

Through FY 00-01, the Department had not incurred any penalties as a result of not meeting deadline dates for the completion of tasks under the CD/SA program. All required tasks/milestones have been completed by their due dates. In fact, the EPA stated in a letter to the Department that: "EPA appreciates



*The Department held a blood drive after the attacks of 9/11; so many Department employees offered to donate blood it was necessary to assign appointment times for each one*



*A Department employee donates blood*



MDWASD's (the Department's) outstanding record in meeting all of the schedules contained in the consent decrees. More importantly, EPA appreciates MDWASD's accomplishment in meeting or exceeding the environmental and public health goals of the consent decrees to date."

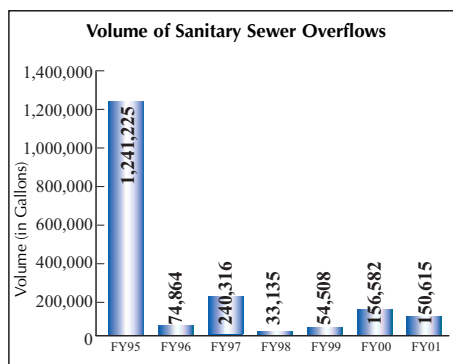
The CD/SA program is divided into three major sub-programs: the Wastewater Treatment Plant Expansion Program, the Pump Station Improvement Program and the Infiltration/Exfiltration/Inflow Reduction Program.

#### • Wastewater Treatment Plant Expansion Program

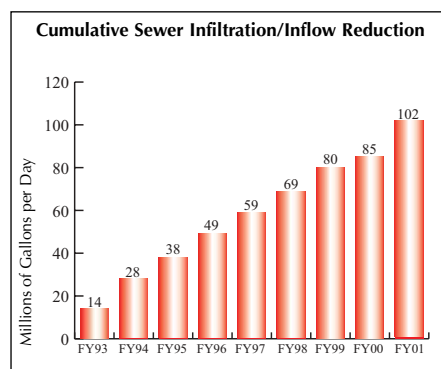
Tasks under this program were completed in previous years. Most of the work done at the Department's wastewater treatment plants during FY 00-01 was for the effluent reuse program. The effluent reuse program was created to allow the Department to conserve fresh drinking water by converting those wastewater treatment plant processes that currently use potable water into reclaimed water systems. In addition, the Department uses reclaimed water to irrigate the landscaping at its wastewater treatment plants, as well as at Florida International University's North Campus, which is located near the Department's North District Wastewater Treatment Plant.

#### • Pump Station Improvement Program

The Pump Station Improvement Program is an ongoing project created to evaluate and improve the operation and transmission capacity of the County's more than 930



wastewater pump stations. Of the more than 500 pump station and 200 force main projects that were necessitated by the CD/SA program, 89 percent have been completed. The remaining projects are scheduled for completion over the next few years.



#### • Infiltration/Exfiltration/Inflow Reduction Program

Through its extensive Infiltration/Exfiltration/Inflow (I/E/I) Reduction Program, the Department continues to address the subject of extraneous rainfall and groundwater entering the sanitary sewer system. A number of repairs have been identified under this program. To date, the Department has completed all related I/E/I tasks by their due dates, and has not been penalized for failing to meet a deadline. As a result of this program, I/E/I has been reduced by 17.2 million gallons per day (MGD) during FY 00-01, and 104.6 MGD from the beginning of the program through the end of the fiscal year. Also, overflows in the sanitary sewer system (after adjustment to account for severe storms, pipeline breaks caused by contractors and vandalism) were reduced to 150,615 gallons during FY 00-01 from 156,582 gallons in FY 99-00.

#### Efficiency Program

FY 00-01 was the fourth year of the Department's efficiency program, more commonly known by its acronym, POWER (Partnership Optimizing WASD's Efficiency and Reengineering). In a true spirit of partnership, POWER was implemented with the cooperation of AFSCME Local 121, the Government Supervisors Association of Florida and all Department employees. Since



the inception of the POWER Program, there have been no rate increases for Department customers and employees have saved millions of dollars.

The POWER program—based on the idea that Department employees make the best consultants—has changed the way the Department does business, making it more competitive and efficient. It consists of employees voluntarily joining a Process Improvement Team in their area, where current Department procedures are analyzed and team members contribute ideas for improving procedures and saving the Department—and ultimately, customers—money.

The program's goals include: not raising rates for service over a five-year period; improving service to customers; protecting the jobs of all current employees; and complying with federal and state regulations. POWER has been such a success that it has been chosen by County management as a model for other County departments' efficiency programs.

#### • Holding the Line on Rates

A major component of the Department's Efficiency Program is the promise to hold down water and wastewater service rates over a five-

year period. FY 00-01 was the fourth year of this promise, which was made to the

Department's customers. The Board of County Commissioners has even approved a reduction in the Department's water and wastewater service rates for the next fiscal year. What makes all this even more remarkable is the fact that the Department's rates are already among the lowest in the United States.

### Supervisory Control and Data Acquisition System

The Department's Supervisory Control and Data Acquisition (SCADA) System is a very important component of day-to-day operations, the CD/SA program, and emergency operations. It is also one of the largest programs of its kind in the country. The system provides centralized, remote monitoring and control of most of the Department's water and wastewater functions.

To date, approximately 96 percent of the County's more than 930 wastewater pump stations have been retrofitted with SCADA monitoring

devices, as have the following facilities: all water well fields, the North District Wastewater Treatment Plant, and the Hialeah and John E. Preston water treatment plants. Installation of SCADA continues at the remaining wastewater pump stations, the Central District Wastewater Treatment Plant (where installation is 50 percent complete), South District Wastewater Treatment Plant, and the Alexander Orr Water Treatment Plant. SCADA has allowed the Department's Communications Center—which is where emergency calls are handled and dispatched to work crews 24-hours a day, 365 days a year—to observe the functioning of each pump station around the clock.

*Employees of the Hialeah Water Treatment Plant*



## Revenue Bond Ratings Upgraded Again

Moody's Investors Service, a nationally recognized bond rating agency, upgraded the rating of the Department's outstanding water and sewer system revenue bonds to "A1" from "A2" in FY 00-01. The upgrade was based on the Department's solid debt-service coverage supported by a very competitive rate structure, broad service area with large customer base and management initiatives which have reduced operating expenses over the past few years.

This was the second such upgrade by a well-known bond-rating agency in recent years. During the previous fiscal year, Fitch upgraded the Department's revenue bonds to an "A+," from "A."

## Computer Network

The Department completed a planned expansion of its computer network and related services to all of its facilities during FY 00-01. More than 1,300 Departmental users are currently online and connected to the County's intranet. Also, a network monitoring system was implemented to assist with problem identification and troubleshooting. Ultimately, the Department's goal for its computer services is to be proactive in identifying and correcting potential problems before they can develop.

## Disinfection Byproducts

In 1996, the EPA amended regulations establishing maximum contaminant levels for two groups of water disinfection byproducts: Total Trihalomethanes and Haloacetic Acids. These regulations were put into effect in 1998, and they require large utilities (including the Department) to comply by January 2004.

The Department's John E. Preston Water Treatment Plant was determined to be the only plant requiring modifications in order to comply with the new EPA regulations. The Department has made designs for these modifications, and work is currently underway at the plant to ensure completion by the January 2004 deadline date.

## Ground Water Under the Direct Influence of Surface Water Agreement with State

The Department continues to comply with the terms of an agreement with the FDEP regarding ground water under the direct influence of surface water (GWUDI). The Department has rehabilitated all wells that were GWUDI. In addition, the Department has built all five of the smaller-diameter wells required



*Employees of the South District Wastewater Treatment Plant*

under its agreement with the FDEP; three of the wells are in operation while two are currently being tested.

## Aquifer Storage and Recovery

Aquifer Storage and Recovery (ASR) is a method of storing water in times of excess rainfall for use as a back-up supply during dry spells. Freshwater is pumped from the Biscayne Aquifer when it is abundant, into the upper Floridan Aquifer for storage and later recovery. The ASR systems installed at the Department's West and Southwest wellfields are expected to provide the Department with a back-up water supply of approximately 25 MGD to meet peak demand.

ASR is a cost-effective way for the Department to store excess water for use during the dry season because of its minimal capital costs and environmental impact. Since the Department began using ASR technology, it has been able to store more than 1.5 billion gallons of water at its West Wellfield. This stored water proved its usefulness during the severe drought of





*Employees of the Alexander Orr, Jr. Water Treatment Plant*

FY 00-01, as the Department was able to draw 10 MGD during part of it.

The Department has already built five ASR wells. Two more are currently being designed, with more proposed for the future.

### Water Conservation

In addition to providing safe drinking water and treatment of wastewater, the Department is committed to the conservation of the County's precious water resources. The Department has several water conservation programs in place, including education, school contests, and providing customers with information and free water conservation kits. Theft of water is prosecuted aggressively. The Department's leak detection crews search underground pipes throughout the County, looking for leaks in the water system and noting them for repair. A permanent County ordinance restricts lawn watering to the most efficient times of the day—from 5:00 PM to 9:00 AM—when it is not superseded by stricter state-imposed water restrictions.

The need to conserve water

became painfully acute during FY 00-01, when one of the worst droughts on record hit Miami-Dade County and other parts of the state. The Department, with help from other County departments and state agencies, was able to secure the cooperation of its customers in conserving water during the drought. As a result, water usage throughout the County was reduced by approximately 6.5 percent during FY 00-01 over the previous year.

### Consumer Confidence Report

One of the Department's accomplishments during FY 00-01 was the production of the annual Consumer Confidence Report (CCR) on water quality. Copies of this report were distributed or otherwise made available to virtually all of the County's residents, in English and Spanish. The report was also posted on the Department's website. The Department's CCR shows that the County's water consistently meets both state and federal drinking water standards.

### Effluent Reuse

The Department is implementing a \$5.9 million wastewater reuse program as part of the CD/SA program. This reuse program includes converting those wastewater treatment plant processes that currently use potable water into reclaimed water systems, and the use of reclaimed water for irrigating green space at the County's three wastewater treatment plants. These uses are considered Public Access Reuse (PAR) and qualify as such in the State of Florida.

Construction of the PAR systems at the North, Central and South districts' wastewater treatment plants began in 1999, and was completed ahead of the EPA compliance completion date of January 1, 2001. The PAR systems at the three plants are already operational, ahead of the EPA's compliance completion dates for each plant. The Department expects to demonstrate the ability of the PAR systems at the three plants to operate at capacity for a period of three months, before the related EPA compliance completion date of April 1, 2002.



Once fully implemented and approved by the EPA and the FDEP, the in-plant and PAR reuse systems are expected to provide the Department with approximately 16 MGD of reclaimed water.

### Customer Information System

In an effort to provide better customer service, the Department implemented a new Customer Information System in December of 2001. This project has been a number of years in the making, with the bulk of the actual hands-on work on the new system taking place during FY 00-01.

The system will help the Department provide more efficient, cost-effective service to its customers, with plans to phase in the following features over a period of time: bill customers monthly; accept credit cards and bank cards for payment; allow customers to make payments and close their accounts via the Internet; and allow customers to view their billing histories on the Internet.

*Employees of the Communications Center at Westwood Lakes*



### Pipebursting Pilot Program

In July of 2001, the Department conducted a pilot program using new technology for the replacement of one-inch and two-inch water mains. The Village of Miami Shores was chosen as the site for the pilot program.

The project, called the Pipebursting Program, revolutionizes the installation and replacement of water mains. In the past, for example, a typical 500-foot long two-inch water main would take approximately nine months for its design, obtaining permits, and installation. Using pipebursting technology, the Department can install such a water main in just three days—by simply splitting (or bursting) the old pipe while simultaneously installing the high-density polyethylene (HDPE) pipe, without the need for permits, design work, or digging large trenches—at a much lower cost.

In order to make the program work, the Department, through the Florida Section of the American Water Works Association, secured the approval of various state and local regulatory agencies to use pipebursting technology. The program is comprised of three major components: pipebursting (where the old pipe being replaced is split, or "burst"); the use of HDPE instead of more expensive copper; and the pre-chlorination of the pipe to ensure the public's health and safety.



The approval of regulatory agencies of the Department's pipebursting technology is good news for Department customers and County residents. Not only will it mean reduced construction costs for the Department—which are passed on to customers in the form of reduced and/or stable water and sewer rates—but it also means less disruption to residents as streets and sidewalks do not have to be excavated.

### Unforeseen Events

During FY 00-01, the County experienced three emergency situations that required action from the Department.

#### **• No-Name Storm Event**

In October 2000, an unnamed storm brought an unprecedented amount of rainfall to the County. Like Hurricane Irene the previous year, the "No-





*Cross-section of the Biscayne Aquifer, sole source of water for Miami-Dade County*

Name Storm," as it was called, caused massive flooding due to the large amount of rain it brought, nearly one foot during a 24-hour period in some places in the County. The flooding resulted in a high number of alarms at pump stations, and a large increase in the amount of wastewater channeled to the Department's treatment plants. Fortunately, the Department handled this extra flow without any serious problems at its plants.

#### • **Drought and Water Restrictions**

In December 2000, the South Florida Water Management District (SFWMD) announced Phase 1 water usage restrictions for all of South Florida, including all of Miami-Dade County. The restrictions were later increased to Phase 2, a first for the County. The restrictions were imposed because of a severe drought over much of the state, which caused Lake Okeechobee—the backup water supply for the County—to dry up to record-low levels.

Although water usage in the County was not reduced to the levels called for by the water usage restrictions, it was reduced by approximately 6.5 percent.

#### • **Biscayne Bay Sewer Riser Break**

In March 2001, a large vessel maneuvering in Biscayne Bay ruptured an access riser pipe attached to the 72-inch sewage force main running underneath the Bay. The rupture caused approximately 12 million gallons of raw sewage to spill into Biscayne Bay and the coastal waters surrounding the County and the County's beaches.

The Department — in conjunction with the Florida Department of Health and the Miami-Dade County Department of Environmental Resources Management—issued advisories to warn residents and visitors of possible contamination of coastal waters and beaches. The Department's emergency work crews responded swiftly to the rupture, sealing off the flow of sewage through the break within four hours. As a result of their hard work, impact to the environment was minimized and beaches were reopened three days after the incident.

### New Douglas Facility

The Department broke ground on its new headquarters building during the early part of FY 00-01. The new building is located conveniently on a major South Florida roadway, US-1, right at the County's Douglas Road MetroRail Station. Construction proceeded rather quickly, and the building's first occupants moved in during the early part of December 2001.



*Douglas Facility*

### Water/Wastewater Needs Assessment Study

Miami-Dade County has grown, and continues to grow, at a rapid pace. In order to manage this growth in a way that benefits all sectors of society, the County has implemented a number of initiatives aimed at revitalization and development, including: Infill Housing Initiatives; the Brownfields Program; the Office of Community and Economic Development Program; the Federal Designated Empowerment Zones and Enterprise Zones enacted under the Tax Relief Act of 1997; the Quality

Neighborhood Improvements Program; and miscellaneous County-initiated projects.

Many of these initiatives are expected to result in an increase in demand for water and sewer services. As a consequence of this added demand, infrastructure improvements—including both new additions and the rehabilitation of existing deficiencies in the system—will be necessary.

To prepare for this expected increase in demand for its services, the Department conducted a water/wastewater needs assessment study, which was completed during the previous fiscal year. The study found that the Department will need to make numerous improvements. Some examples of the types of upgrades required include: new water and sewer main installations, improved fire protection through the replacement of undersized water mains and correction of low water-pressure situations, and installing and relocating fire hydrants.

A total of 589 improvement

projects, to be implemented over a 20-year period, were identified as part of the study. Anticipated costs for the improvements are \$1.1 billion. At the end of FY 00-01, approximately \$10 million were committed for planning and design work related to several of the improvements identified by the study.

### Miami Beach Marina 54-Inch Sewer Main Break Settlement

During FY 00-01, the Department and the County reached a settlement with the various parties involved in the Miami Beach Marina Sewer Main Break, which happened in the previous fiscal year. In the incident, a marine contractor working at the Miami Beach Marina broke a 54-inch sewer force main. The resulting sewage spill into Biscayne Bay and coastal waters in the area forced the



*Employees of the Central District Wastewater Treatment Plant*

closure of many popular beaches, as Department crews worked with a contractor around the clock to stop the spill.

As part of the settlement, the Department recovered \$2.5 million from the parties involved.

*Employees of the 11th Street Yard*



# Financial Information



## Enterprise Fund

The Department operates as an enterprise fund of Miami-Dade County. As such, the Department funds its expenditures through its rates and charges and receives no income from ad valorem taxes levied by the County. The Department recommends rates annually to provide for anticipated cash outlays for operating expenses as well as capital improvement requirements and debt service payments.

## Accounting System and Budgetary Control

As specified in Miami-Dade County Ordinance 93-134, the Department's financial accounting system is based upon generally accepted accounting principles. Internal accounting controls are an integral part of the Department's management systems and are designed to provide reasonable assurance that assets are safeguarded from unauthorized use or disposition and that records used for preparing financial statements and maintaining asset accountability are reliable.

To aid in carrying out this responsibility, management strives to maintain a system of internal accounting control, which is established after weighing the cost of such controls against the benefits derived. Due to the inherent limitations of the effectiveness of any system of internal accounting control, management cannot provide absolute assurance that the objectives of internal accounting control will be met.

As part of the County's ongoing efforts to employ comprehensive and cost-effective internal accounting controls, Miami-Dade County's internal auditing staff reviews the Department's controls and procedures on a continuing basis. The County's Director of Audit and Management Services reports to the County Manager, providing the independence necessary for objective auditing and reporting on Department affairs.

The Board of County Commissioners approves the Department's annual budget for its recommended rates, expenses and capital outlays. An analysis of revenue and operating

expenses for the fiscal year ended September 30, 2001 is provided in the financial section of this report.

The Department controls current expenses at both the functional and operating division levels. Through the Department's management reporting system, which includes responsibility centers, division managers are responsible for budgetary items that are controllable at their organizational levels. Since all expenses are controllable at some level, this dual monitoring of expenses serves to strengthen overall budgetary and management controls.

## Revenues

Operating revenues for the fiscal year ended September 30, 2001 were \$360.6 million, a decrease of \$18.8 million (5%) when compared to \$379.4 million in revenues recorded in the fiscal year ended September 30, 2000. The decrease in revenues was primarily attributable to the mandatory water restrictions implemented by the South Florida Water Management District in December 2000. In spite of the fact that the number of retail



water and wastewater customers increased by 15,196 and 10,344, respectively, during fiscal year 2001, the impact of the mandatory water restrictions was significant.

### Operating Expenses

Total operating and maintenance expenses for the fiscal year ended September 30, 2001 were \$180.2 million, an increase of \$11.3 million (6.7%) over the previous year. Increases in costs were due to an increased level of maintenance and operational efforts to the water and wastewater systems.

### Debt Administration

The Department actively participates in Florida's State Revolving Fund (SRF) loan program. Additional loan commitments in the amount of \$7.3 million were received during FY 00-01 for various improvements to the water and wastewater systems and treatment plants. SRF loan commitments totaled \$209.2 million at September 30, 2001. During fiscal year 2001, the Department drew \$18.9 million against these commitments, with interest rates between 3 percent and 3.3 percent.

Data related to individual long-term debt issues is summarized as follows (dollars in thousands):

	Amount Outstanding Sept. 30, 2001	Gross Interest Expense	Outstanding Interest Rates
Revenue bonds	\$1,334,240	\$ 72,154	4.1 - 6.3% & variable
Revenue refunding bonds	314,905	11,638	4.4 - 5.0%
SRF loan obligations	133,130	4,036	2.6 - 4.2%
Notes	1,118	72	6.0 %

The required ratio ("coverage") of "net revenues", as defined by County Ordinance 93-134, Section 602, to the combined debt service requirements of the various "primary" issues is 1.10 to 1, excluding the Notes and SRF loan obligations. "Secondary" debt consists of the SRF loan obligations. The SRF loan obligations have a required debt coverage of 1.15 to 1. Actual coverage for the past three fiscal years is shown below:

	Primary Coverage	Secondary Coverage
2001	1.76	7.07
2000	2.00	10.10
1999	1.75	7.07

Repurchase Agreements which are collateralized by U.S. Government and Agency Securities. Investments are competitively bid among banks and investment brokers enabling the Department to obtain the best interest rates available in the market. A summary and comparison of cash management activity for fiscal years ended September 30, 2001 and 2000 is as follows (dollars in thousands):

	2001	2000
Average portfolio balance	\$731,141	\$701,717
Average investment yield	5.5%	6.1%
Interest earned on investments	\$40,472	\$43,068



### Cash Management

The Department pools all cash and investments, with the exception of certain investments which are required to be held in trust and escrow accounts under the terms of bond ordinances and loan agreements.

Pooled investments are made by the County pursuant to Florida Statutes and resolutions of the Board of County Commissioners and consist of U.S. Government and Agency Securities, Commercial Paper, Bankers' Acceptances and

### Risk Management

The Department maintains a self-insurance program for general liability and automobile liability exposures. The liability for this program is based on an actuarial study performed by consulting actuaries. The Department also participates in the County's self-insurance programs for workers' compensation and health and life insurance. Insurance is maintained with independent carriers for all other risks of loss.

## Other Information

### Independent Audit

The accompanying financial statements have been audited by the Department's independent auditors, KPMG LLP, and their report on the financial statements resulting from their audit is included in the financial section of this report.

### Awards

#### • Certificate of Achievement for Excellence in Financial Reporting

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Department for its Comprehensive Annual Financial Report for the fiscal year ended September 30, 2000. The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government financial reports.

In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report, whose contents conform to program standards. Such

report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. The Department has received a Certificate of Achievement for the past 19 fiscal years. We believe our current report continues to conform to the Certificate of Achievement program requirements, and are submitting it to GFOA.

#### • National Association of Counties 2001 Achievement Award for County Model Programs

The Department is proud of the fact it received two Achievement Awards for County Model Programs from the National Association of Counties in FY 00-01. The awards were for:

##### – Miami Beach Contingency Plan

A plan for the diversion of sewer flows throughout the system in the event of a sewer main break or other emergency; the plan was actually put into action successfully in 2000 during the Miami Beach Marina Sewer Main Break.

## Certificate of Achievement for Excellence in Financial Reporting

Presented to

### Miami-Dade Water and Sewer Department, Florida

For its Comprehensive Annual Financial Report  
for the Fiscal Year Ended  
September 30, 2000

A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.



*Samuel A. Huwe*  
President  
*Jeffrey L. Esser*  
Executive Director

#### – Polyethylene Pipe Installation and Trenchless Technology

A pilot program of installing less-expensive polyethylene pipe instead of copper, using trenchless technology (installation without having to dig up the ground).

#### • Association of Metropolitan Sewerage Agencies 2000 Peak Performance Award

The Department's North District and Central District wastewater treatment plants received Peak Performance



Awards from the Association of Metropolitan Sewerage Agencies in FY 00-01. The Central District plant received a Gold award for 100 percent compliance with its National Pollutant Discharge Elimination System (NPDES) permit. The North District plant received a Silver award for having received no more than five NPDES permit violations in a calendar year. This award recognizes excellence in wastewater treatment, as measured by compliance with NPDES permits for an entire year.

• **Florida Sectional American Water Works Association Annual Conference's "Tapping and Fun Tap Contest"**

The Department's tapping team won the Florida Sectional American Water Works Association (AWWA) Annual Conference's "Tapping and Fun Tap Contest" during FY 00-01. This is the team's eighth consecutive state title, and eleventh in 12 years. The team is scheduled to represent the State at AWWA's National Conference in New Orleans, Louisiana, next year.

## Acknowledgements

We would like to thank all of the Department's employees for their hard work this past year. Their commitment, spirit of teamwork and dedication to excellence allows us to continue serving the residents of Miami-Dade County with pride. We would also like to thank the Controller Division and the Public Affairs Section for their tireless efforts and professionalism in preparing this report, as well as our external auditors for their invaluable assistance. Finally, a special acknowledgement is extended to the Mayor, Board of County Commissioners and County Manager for their continued leadership in enabling the Department to fulfill its role.



**William M. Brant, P.E.**  
*Director*



**Dana M. Moss, Sr., C.P.A.**  
*Assistant Director - Finance*

# Organizational Chart

